DOCKET NO. 186961/US - 465122.00015 PATENT

Application Number: 10/552,234

Claims 1-13. (Cancelled)

14. (Currently Amended) A catalyst for producing hydrocarbon from a syngas in a slurry

bed, comprising:

a catalyst support on which cobalt a metallic compound is loaded, wherein an

alkali metal content or an alkaline-earth metal content in the catalyst support is in a

range of between approximately 0.01 mass% to 0.07 mass%.

15. (Currently Amended) A catalyst for producing hydrocarbon from a syngas in a slurry

bed, comprising:

a catalyst support on which cobalt a metallic compound is loaded, wherein an

alkali metal content or an alkaline-earth metal content in the catalyst support is in a

range of approximately 0.01 mass% to 0.04 mass%.

16. (Previously Presented) The catalyst according to claim 15, wherein the catalyst

support simultaneously satisfies a pore diameter in a range of approximately 8 nm to 50

nm, a surface area in a range from 80 m<sup>2</sup>/g to 550 m<sup>2</sup>/g and a pore volume in a range

from 0.5 mL/g to 2.0 mL/g.

17. (Previously Presented) The catalyst according to claim 14, wherein the catalyst

support simultaneously satisfies a pore diameter in a range of approximately 8 nm to 50

nm. a surface area in a range from 80 m<sup>2</sup>/g to 550 m<sup>2</sup>/g and a pore volume in a range

from 0.5 mL/g to 2.0 mL/g.

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18. (Previously Presented) The catalyst according to claim 14, wherein the catalyst

support allows the catalyst to have a fractured or pulverized ratio of at most 10% when

an ultrasonic wave is emitted for approximately 4 hours at a room temperature to the

catalyst dispersed in water.

19. (Previously Presented) The catalyst according to claim 15, wherein the catalyst

support allows the catalyst to have a fractured or pulverized ratio of at most 10% when

an ultrasonic wave is emitted for approximately 4 hours at a room temperature to the

catalyst dispersed in water.

20. (Previously Presented) The catalyst according to claim 16, wherein the catalyst

support allows the catalyst to have a fractured or pulverized ratio of at most 10% when

an ultrasonic wave is emitted for approximately 4 hours at a room temperature to the

catalyst dispersed in water.

21. (Previously Presented) The catalyst according to claim 14, wherein the catalyst

support is silica having a spherical shape.

22. (Previously Presented) The catalyst according to claim 15, wherein the catalyst

support is silica having a spherical shape.

23. (Previously Presented) The catalyst according to claim 16, wherein the catalyst

support is silica having a spherical shape.

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24. (Previously Presented) The catalyst according to claim 17, wherein the catalyst

support is silica having a spherical shape.

25. (Previously Presented) The catalyst according to claim 18, wherein the catalyst

support is silica having a spherical shape.

26. (Previously Presented) The catalyst according to claim 19, wherein the catalyst

support is silica having a spherical shape.

27. (Previously Presented) The catalyst according to claim 20, wherein the catalyst

support is silica having a spherical shape.

28-41. (Cancelled)

42. (Currently Amended) The catalyst according to claim [[28]] 14, wherein the metallic

compound cobalt is made from a precursor of metallic compound cobalt of at least one

of an alkali metal or alkaline-earth metal content of at most 5 mass%.

43. (Currently Amended) The catalyst according to claim [[29]] 15, wherein the metallic

compound cobalt is made from a precursor of metallic compound cobalt of at least one

of an alkali metal or alkaline-earth metal content of at most 5 mass%.

Claims 44-55. (Cancelled)

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Claims 56-72. (Withdrawn)

73. (New) The catalyst according to claim 14, wherein a CO conversion is 40% or more.

74. (New) The catalyst according to claim 15, wherein a CO conversion is 40% or more.